

14th March 2016 Maintaining Loopback devices after reboot -- Openstack: Cinder:How do you add a new LVM to PV / VG and have it remain after reboot?

I'm working with a mostly out of box packstack installer script. For the most part I've created a packstack-answers.txt file that fully automates my entire setup yet I quickly noticed that I neglected to update the following parameter (CONFIG_CINDER_VOLUMES_SIZE) and this was causing some cinder errors when creating volumes.

This causes a few errors when I try and create a volume which is larger then the 20gb file-based lvm originally provisioned for cinder volumes.

Digging through the cinder logs I find the following errors which indicate I need to expand the space used pv/vg/lvm system:

```
scheduler.log: Failed to run task
cinder.scheduler.flows.create_volume.ScheduleCreateVolumeTask;volume:create: No valid host was
found. No weighed hosts available
```

```
scheduler.log:2016-03-12 21:48:48.338 1463 WARNING cinder.scheduler.filters.capacity_filter [req-
fb67233d-7ed9-4bb5-815c-2d3a5d2f5133 1599649750d84021b72ea8dc0ccb20ba
9b2ebd62275d42aa897f2a3d51994069 - - ] Insufficient free space for volume creation on host
<your_host>@lvm#lvm (requested / avail): 100/20.6
```

The steps to the solution were pretty straight forward but I was struggling to get them to remain after rebooting the server:

- 1) truncate --size 1024G /var/lib/cinder/cinder-volumes2
- 2) losetup --find --show /var/lib/cinder/cinder-volumes2 /dev/loop2
- 3) pvcreate /dev/loop2
- 4) lvextend cinder-volumes /dev/loop2
- 5) systemctl restart openstack-cinder-volume
- 6) Update /usr/lib/systemd/system/openstack-lossetup.service to include the new file-lvm mounts:

```
ExecStart=/usr/bin/sh -c 'usr/sbin/lossetup -j /var/lib/cinder/cinder-volumes | /usr/bin/grep /var/lib/cinder
/cinder-volumes || /usr/sbin/lossetup -f /var/lib/cinder/cinder-volumes; /usr/sbin/lossetup -j /var/lib/cinder
/cinder-volumes2 | /usr/bin/grep /var/lib/cinder/cinder-volumes2 || /usr/sbin/lossetup -f /var/lib/cinder
/cinder-volumes2'
```

```
ExecStop=/usr/bin/sh -c 'usr/sbin/lossetup -j /var/lib/cinder/cinder-volumes | /usr/bin/cut -d : -f 1 | /usr/bin
/xargs /usr/sbin/lossetup -d; /usr/sbin/lossetup -j /var/lib/cinder/cinder-volumes2 | /usr/bin/cut -d : -f 1 |
/usr/bin/xargs /usr/sbin/lossetup -d;'
```

This resolved the issue I had with losing loopback device after rebooting. Which was causing the following error in the volume log.

```
/var/log/cinder/volume.log
```

```
2016-03-13 18:35:41.396 7470 ERROR cinder.volume.manager IndexError: list index out of range
```

How did I find this? Look at the code in the following puppet template: `/usr/lib/python2.7/site-packages/packstack/puppet/templates/cinder_lvm.pp`

Posted 14th March 2016 by [cappetta](#)

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